

[0015] Displaying the set of graphical objects may comprise presenting a set of successive screens to the user. Each one of the successive screens may contain one or more graphical objects of the set of graphical objects.

[0016] The method of providing a graphical output may further comprise determining, from the user selection, a visual acuity of the user and displaying information regarding the visual acuity to the user.

[0017] An electronic device may comprise a housing, a display positioned at least partially within the housing and configured to display a graphical output, a transparent cover positioned at least partially over the display, an optical sensor positioned below the transparent cover and configured to obtain a scan of at least a portion of a face of a user, and a processor.

[0018] The processor may be configured generate a depth map using the scan, and determine a similarity score between the depth map and one or more identity maps of a set of stored biometric identity maps that are associated with a registered user.

[0019] The processor may be additionally configured to, in response to the similarity score exceeding a threshold, identify the user as the registered user, determine a corrective eyewear scenario using the depth map, select a display profile that is associated with the corrective eyewear scenario, and generate a graphical output in accordance with the selected display profile.

[0020] The optical sensor may comprise a light emitting module configured to project a dot pattern on the portion of the face of the user and the optical sensor may obtain the scan of the portion of the face of the user using the projected dot pattern.

[0021] The projected dot pattern may be produced by a series of infrared light rays emitted from the light emitting module toward the portion of the face of the user and the optical sensor may further comprise an infrared-sensing array configured to detect infrared light reflected from the portion of the face of the user.

[0022] The corrective eyewear scenario may correspond to the registered user wearing a corrective eyewear. In some embodiments, the corrective eyewear scenario may correspond to the registered user not wearing a corrective eyewear.

[0023] The corrective eyewear scenario may correspond to the registered user wearing a privacy eyewear and the graphical output may include a privacy blur that appears unblurred when viewed using the privacy eyewear.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] Reference will now be made to representative embodiments illustrated in the accompanying figures. It should be understood that the following descriptions are not intended to limit the embodiments to one preferred embodiment. To the contrary, it is intended to cover alternatives, modifications, and equivalents as may be included within the spirit and scope of the described embodiments as defined by the appended claims. Identical reference numerals have been used, where possible, to designate identical features that are common to the figures.

[0025] FIG. 1 illustrates a side view of an electronic device performing a facial recognition scan, as described herein.

[0026] FIG. 2A illustrates a front view of an electronic device displaying a standard graphical output, as described herein.

[0027] FIG. 2B illustrates a front view of an electronic device displaying a vision-corrected graphical output, as described herein.

[0028] FIG. 3A illustrates a front view of an electronic device displaying a vision setting menu, as described herein.

[0029] FIG. 3B illustrates a front view of an electronic device displaying a vision diagnostic test, as described herein.

[0030] FIG. 4 depicts an example method of associating a particular graphical output with an appearance of a user, as described herein.

[0031] FIG. 5 depicts an example process of controlling a vision-correcting operation of an electronic device, as described herein.

[0032] FIG. 6 depicts an example process of a vision diagnostic operation and a presentation of a graphical output for a user with myopic vision and based on the presence of corrective eyewear, as described herein.

[0033] FIG. 7 depicts an example process of a vision diagnostic operation and a presentation of a graphical output for a user with hyperopic vision and based on the presence of corrective eyewear, as described herein.

[0034] FIG. 8 depicts an example process of an automatic vision diagnostic operation and a control of a graphical output, as described herein.

[0035] FIG. 9 depicts an example process of generating and displaying a privacy screen in response to a facial scan of a user, as described herein.

[0036] FIG. 10 depicts an example block diagram of an electronic device that may perform the disclosed processes and methods, as described herein.

[0037] The use of cross-hatching or shading in the accompanying figures is generally provided to clarify the boundaries between adjacent elements and to facilitate legibility of the figures. Accordingly, neither the presence nor the absence of cross-hatching or shading conveys or indicates any preference or requirement for particular materials, material properties, element proportions, element dimensions, commonalities of similarly illustrated elements, or any other characteristic, attribute, or property for any element illustrated in the accompanying figures.

[0038] Additionally, it should be understood that the proportions and dimensions (either relative or absolute) of the various features and elements (and collections and groupings thereof), and the boundaries, separations, and positional relationships presented therebetween, are provided in the accompanying figures merely to facilitate an understanding of the various embodiments described herein, may not necessarily be presented or illustrated to scale, and are not intended to indicate any preference or requirement for an illustrated embodiment to the exclusion of embodiments described with reference thereto.

DETAILED DESCRIPTION

[0039] The following disclosure relates to various techniques for generating, providing, and displaying various graphical outputs, including a standard graphical output and a vision-corrected graphical output, on a display of an electronic device. As described herein, a “standard graphical output” may be used to refer to a graphical output of a graphical user interface that appears undistorted to a user